BRUHAT BANGALORE MAHANAGARA PALIKE

Project: 11.Improvement to Drains and Asphalting to Road at SVN School Road Krishnappa House to Venkatesh House Road in Ward No.06(Thanisandra), Byatarayanapura Sub Division

Est Cost: =35.0Lakh

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
1	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	New Drain	Cum							
	Krishnappa House Road		1	35.00	0.75	0.60	15.75		
	A cross Road		1	80.00	0.75	0.60	36.00		
	Culvert		4	6.00	2.00	1.20	57.60		
							109.35	202.92	**22189.30**
2	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)								
	For BS Slab Drain	Sqm							
	Krishnappa House Road		1	35.00	1.80		63.00		
	A cross Road		1	80.00	1.80		144.00		
							207.00	665.68	**137795.76**
3	KSRB 5.2-3: Providing and constructing granite size stone masonry in foundation cement mortor 1:6, stone hammered dressed in courses not less than 20cms high, bond stones at 2m. apart in each course including cost of materaials, labour, curing complete as per specifications. Specifcation No. KBS 5.1.13.(using available stones) (P.No.23, I.No.5.6 of PW, P&IWTD S.R 2016-17)								
	Culvert	Cum							
		2	4	6.00	0.60	1.05	30.24		
							30.24	4438.22	**134211.77**
4	KSRB 15.1.1 Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications. (P.No.113, I.No.15.1 of PW, P&IWTD S.R 2016-17)								
	Culvert	Cum							
		2	4	6.00		1.05	50.40		
							50.40	102.82	**5182.13**
5	KSRB 4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.6 of PW,P&IWTD S.R 2016-17)								
	Coping	Cum							
		2	4	6.00	0.60	0.100	2.88		
							2.88	5767.46	**16610.28**
6	Providing and fixing **RCC Precast cover slab of 250mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
		Sqm							
	Culvert Slab		4	6.00	1.80	--	43.20		
							43.20	4951.00	**213883.20**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
7	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17)								
	Road Portion	Cum							
	A Cross Road		1	80.00	5.50	0.25	110.00		
	Manasa School Road		1	15.00	4.00	0.25	15.00		
	Bad Reaches		6	2.00	2.50	0.23	6.90		
			8	1.50	1.80	0.23	4.97		
							136.87	164.76	**22550.37**
8	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub-base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17)								
	Road Portion	Cum							
	Bad Reaches		6	2.00	2.50	0.23	6.90		
			8	1.50	1.80	0.23	4.97		
							11.87	1768.08	**20983.57**
9	KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17)								
	Road Portion	Cum							
	Bad Reaches		6	2.00	2.50	--	30.00		
			8	1.50	1.80	--	21.60		
							51.60	27.56	**1422.10**
10	KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.161, I.No.21.2 of PW,P&IWTD SR 2016-17)								
	Road Portion	Sqm							
	Rathna Lavander apt Rds								
	7th Main Road		1.00	155.00	5.60	--	868.00		
	8th Main Road		1.00	120.00	5.40	--	648.00		
	9th Main Road		1.00	90.00	5.40	--	486.00		
	2nd Cross Road		1.00	285.00	6.20	--	1767.00		
	Deduct Prime Coat for Bad Reaches						-51.60		
							3717.40	3.18	**11821.33**
11	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)								
	For Laying BC	Sqm							
	Rathna Lavander apt Rds								
	7th Main Road		1	155.00	5.60	--	868.00		
	8th Main Road		1	120.00	5.40	--	648.00		
	9th Main Road		1	90.00	5.40	--	486.00		
	2nd Cross Road		1	285.00	6.20	--	1767.00		
							3769.00	12.72	**47941.68**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
12	KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)								
		Cum							
	Rathna Lavander apt Rds								
	7th Main Road		1	155.00	5.60	0.04	34.72		
	8th Main Road		1	120.00	5.40	0.04	25.92		
	9th Main Road		1	90.00	5.40	0.04	19.44		
	2nd Cross Road		1	285.00	6.20	0.04	70.68		
							150.76	8118.54	**1223951.09**
13	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)								
	Edge line	Sqm	2	650.00	0.10	--	130.00		
							130.00	542.72	**70553.60**
14	KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17)								
	Bed Concrete	Cum							
	Culvert		4	6.00	2.00	0.15	7.20		
	A Cross Road		1	80.00	5.50	0.15	66.00		
	Manasa School Road		1	15.00	4.00	0.15	9.00		
							82.20	5348.76	**439668.07**
15	Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M20/M30 , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. - M30 (at 360Kg per cum coarse aggregate @ 0.69cum and fine aggregate @ 0.46cum) ((P.No.177, I.No.22.6.1 of PW,P&IWTD SR 2016-17)								
	CC Road	Cum							
	A Cross Road		1.00	80.00	5.50	0.10	44.00		
	Krishnappa House Road		1.00	140.00	4.00	0.10	56.00		
	Manasa School Road		1.00	120.00	4.00	0.10	48.00		
							148.00	6217.96	**920258.08**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
16	Vaccum de-watering with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator, HOM of machinery, Screed Vibratory, Power Floater, blade and disc etc., with all lead and lift.(P.No.177, I.No.22.7 of PW, P&IWTD SR 2016-17)								
	CC Road	Sqm							
	A Cross Road		1.00	80.00	5.50	--	440.00		
	Krishnappa House Road		1.00	140.00	4.00	--	560.00		
	Manasa School Road		1.00	120.00	4.00	--	480.00		
							1480.00	95.40	**141192.00**
							Total Construction Cost		**3430214.333**
17							**Cost towards Preparation of DPR LS**		**34303.00**
18							**Cost towards PMC / Third Party inspection LS**		**34303.00**
								Sub Total	**3498820.33**
19							**Miscellaneous and rounding off**		**1179.67**
								Total	**3500000.00**

Certificate.

1 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Tejus Consultants

Assistant Engineer

Assistant Executive Engineer

Executive Engineer
Byatarayanapura Division
Yelahanka ... B.B.M.P.
Bangalore-560092

BRUHAT BANGALORE MAHANAGARA PALIKE

Project: 12.Improvement of Drains and Asphalting to Road at Rachenahali Circle to Burial Ground in Ward No.06(Thanisandra), Byatarayanapura Sub Division

Est Cost: = 40.0Lakh

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
1	KSRRB 200-8. Clearing and grubbing road land including uprooting rank vegetation, grass, brush, shrubs, saplings and trees of girth upto 300mm, by manual means, in area of light jungle, removal of stumps, disposal of unserviceable materials, stacking of serviceable materials labour charges complete as per specifications. MORTH / Chapter 2 (P.No.136, I.No.18.11 of PW, P&IWTD SR 2016-17)								
	Vegetation Clearance	Cum							
	Rachenahalli								
	Anne's Church To Chinmayi School		2	420.00	2.00		1680.00		
	Rachenahalli Circle to Chinmayi school		2	311.00	1.50		933.00		
							2613.00	6.36	**16618.68**
2	Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)								
	Rachenahalli								
	Anne's Church To Chinmayi School		2	420.00	1.80		1512.00		
	Consider 25% for R&R						378.00		
	Consider 15% for Damaged and Missing Slabs						-56.70		
							321.30	80.56	**25883.93**
3	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	Desilt	Cum							
	Rachenahalli								
	Anne's Church To Chinmayi School		2	420.00	0.60	0.40	201.60		
	New Drain								
	Rachenahalli Circle to Chinmayi school		2	311.00	0.70	0.70	304.78		
							506.38	202.92	**102754.63**
4	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)								
	For BS Slab Drain	Sqm							
	Rachenahalli								
	Rachenahalli Circle to Chinmayi school		2	311.00	1.80		1119.60		
	Consider 15% for Damaged and Missing Slabs						56.70		
							1176.30	665.68	**783039.38**
5	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17)								
	Road Portion	Cum							
	Rachenahalli								
	Rachenahalli Circle to Chinmayi school		1	311.00	7.00	0.23	500.71		
	Approach to Roads								
			2	10.00	10.00	0.23	46.00		

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	Bad Reaches		4	3.00	2.50	0.23	6.90		
			6	1.50	1.80	0.23	3.73		
							557.34	164.76	**91826.68**
6	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub-base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17)								
	Rachenahalli	Cum							
	Rachenahalli Circle to Chinmayi school		1	311.00	7.00	0.23	500.71		
	Approach to Roads								
	Bad Reaches		2	10.00	10.00	0.23	46.00		
			4	3.00	2.50	0.23	6.90		
			6	1.50	1.80	0.23	3.73		
							557.34	1768.1	**985414.63**
7	KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17)								
	Rachenahalli	Sqm							
	Rachenahalli Circle to Chinmayi school		1	311.00	7.00	--	2177.00		
	Approach to Roads								
	Bad Reaches		2	10.00	10.00	--	200.00		
			4	3.00	10.00	--	120.00		
			6	1.50	10.00	--	90.00		
							2587.00	27.56	**71297.72**
8	KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.161, I.No.21.2 of PW,P&IWTD SR 2016-17)								
	Rachenahalli	Sqm							
	Anne's Church To Chinmayi School		1	420.00	6.70	--	2814.00		
	Deduct Prime Coat for Bad Reaches						-210.00		
							2604.00	3.18	**8280.72**
9	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)								
	Rachenahalli	Sqm							
	For Laying BC								
	Anne's Church To Chinmayi School		1	420.00	6.70	--	2814.00		
	Rachenahalli Circle to Chinmayi school		1	311.00	7.00	--	2177.00		
	Approach to Roads								
			2	10.00	10.00	--	200.00		
							5191.00	12.72	**66029.52**

Sl. No.	Description of	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
10	KSRRB M500-19. Providing and [illegible] bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)								
	Rachenahalli	Cum							
	Anne's Church To Chinmayi School		1	420.00	6.70	0.04	112.56		
	Rachenahalli Circle to Chinmayi school		1	311.00	7.00	0.04	87.08		
	Approach to Roads								
			2	10.00	10.00	0.04	8.00		
							207.64	8118.54	**1685733.65**
11	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)								
	Edge line	Sqm	2	731.00	0.10	--	146.20		
							146.20	542.72	**79345.66**
							Total Construction Cost		**3916225.204**
12				**Cost towards Preparation of DPR LS**					**39163.00**
13				**Cost towards PMC / Third Party inspection LS**					**39163.00**
							Sub Total		**3994551.20**
14							**Miscellaneous and rounding off**		**5448.80**
								Total	**4000000.00**

Certificate.

1 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Tejus Consultants

Assistant Engineer

Assistant Executive Engineer

Executive Engineer

Executive Engineer
Byatarayanapura Division
Yelahanka Zone, B.B.M.P.
Bangalore-560092

BRUHAT BANGALORE MAHANAGARA PALIKE

Project: Improvement to Drains and Asphalting to Roads at Hegadenagara Eastern Side Cross Roads in Ward No.06(Thanisandra), Byatarayanapura Sub Division

Est Cost: =100.0Lakh

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
1	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	Desilt	Cum							
	1st Cross Road								
	LHS		2	100.00	0.60	0.60	72.00		
	RHS		2	100.00	0.60	0.55	66.00		
	2nd Cross Road								
	LHS		2	100.00	0.60	0.55	66.00		
	RHS		2	100.00	0.60	0.55	66.00		
	3rd Cross Road								
	LHS		2	100.00	0.60	0.55	66.00		
	RHS		2	100.00	0.60	0.60	72.00		
	4th Cross Road								
	LHS		2	100.00	0.60	0.55	66.00		
	RHS		2	100.00	0.60	0.55	66.00		
	6th Cross Road		2	200.00	0.60	0.55	132.00		
	2nd A Mn Rd		2	45.00	0.60	0.55	29.70		
	7th Cross Road								
	LHS		2	100.00	0.60	0.55	66.00		
	RHS		2	100.00	0.60	0.55	66.00		
	1st Mn Rd		2	360.00	0.60	0.55	237.60		
							1071.30	202.92	**217388.20**
2	Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)								
	Hegadenagara Eastern Side	Sqm							
	1st Cross Road								
	LHS		2.00	100.00	1.80		360.00		
	RHS		2.00	100.00	1.80		360.00		
	2nd Cross Road								
	LHS		2.00	100.00	1.80		360.00		
	RHS		2.00	100.00	1.80		360.00		
	3rd Cross Road								
	LHS		2.00	100.00	1.80		360.00		
	RHS		2.00	100.00	1.80		360.00		
	4th Cross Road								
	LHS		2.00	100.00	1.80		360.00		
	RHS		2.00	100.00	1.80		360.00		
	6th Cross Road		2.00	200.00	1.80		720.00		
	2nd A Mn Rd		2.00	45.00	1.80		162.00		
	7th Cross Road								
	LHS		2.00	100.00	1.80		360.00		
	RHS		2.00	100.00	1.80		360.00		
	1st Mn Rd		2.00	360.00	1.80		1296.00		
							5778.00		
	Consider 20% for Damaged and Missing Slabs						-1155.60		
							4622.40	80.56	**372380.54**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
3	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)								
	For BS Slab Drain	Sqm							
	Consider 20% for Damaged and Missing Slabs						1155.60		
							1155.60	665.68	**769259.81**
4	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17)								
	Road Portion	Cum							
	Hegadenagara Eastern Side								
	UGD Cutting								
	1st Cross Road								
	LHS		1.00	100.00	1.80	0.23	41.40		
	RHS		1.00	100.00	1.80	0.23	41.40		
	2nd Cross Road								
	LHS		1.00	100.00	2.00	0.23	46.00		
	RHS		1.00	100.00	2.00	0.23	46.00		
	3rd Cross Road								
	LHS		1.00	100.00	2.00	0.23	46.00		
	RHS		1.00	100.00	2.00	0.23	46.00		
	4th Cross Road								
	LHS		1.00	100.00	2.00	0.23	46.00		
	RHS		1.00	100.00	2.00	0.23	46.00		
	7th Cross Road								
	LHS		1.00	100.00	2.00	0.23	46.00		
	5th Cross Road		3.00	200.00	1.20	0.23	165.60		
	6th Cross Road		1.00	200.00	2.00	0.23	92.00		
	Bad Reaches		5.00	2.20	2.50	0.23	6.33		
			5.00	2.00	1.50	0.23	3.45		
			7.00	1.50	1.50	0.23	3.62		
							675.80	164.76	**111344.40**
5	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17)								
	Hegadenagara Eastern Side	Cum							
	UGD Cutting								
	1st Cross Road								
	LHS		1	100.00	1.80	0.23	41.40		
	RHS		1	100.00	1.80	0.23	41.40		
	2nd Cross Road								
	LHS		1	100.00	2.00	0.23	46.00		
	RHS		1	100.00	2.00	0.23	46.00		
	3rd Cross Road								
	LHS		1	100.00	2.00	0.23	46.00		
	RHS		1	100.00	2.00	0.23	46.00		
	4th Cross Road								
	LHS		1	100.00	2.00	0.23	46.00		
	RHS		1	100.00	2.00	0.23	46.00		
	7th Cross Road								
	LHS		1	100.00	2.00	0.23	46.00		
	5th Cross Road		3	200.00	1.20	0.23	165.60		
	6th Cross Road		1	200.00	2.00	0.23	92.00		
	Bad Reaches		5.00	2.20	2.50	0.23	6.33		

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
			5.00	2.00	1.50	0.23	3.45		
			7.00	1.50	1.50	0.23	3.62		
							675.80	1768.08	**1194864.04**
6	KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17)								
	Hegadenagara Eastern Side	Cum							
	UGD Cutting								
	1st Cross Road								
	LHS		1.00	100.00	1.80	--	180.00		
	RHS		1.00	100.00	1.80	--	180.00		
	2nd Cross Road								
	LHS		1.00	100.00	2.00	--	200.00		
	RHS		1.00	100.00	2.00	--	200.00		
	3rd Cross Road								
	LHS		1.00	100.00	2.00	--	200.00		
	RHS		1.00	100.00	2.00	--	200.00		
	4th Cross Road								
	LHS		1.00	100.00	2.00	--	200.00		
	RHS		1.00	100.00	2.00	--	200.00		
	7th Cross Road								
	LHS		1.00	100.00	2.00	--	200.00		
	5th Cross Road		3.00	200.00	1.20	--	720.00		
	6th Cross Road		1.00	200.00	2.00	--	400.00		
	Bad Reaches		5.00	2.20	2.50	--	27.50		
			5.00	2.00	1.50	--	15.00		
			7.00	1.50	1.50	--	15.75		
							2938.25	27.56	**80978.17**
7	KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.161, I.No.21.2 of PW,P&IWTD SR 2016-17)								
	Hegadenagara Eastern Side	Sqm							
	1st Cross Road								
	LHS		1	100.00	6.80	--	680.00		
	RHS		1	100.00	6.50	--	650.00		
	2nd Cross Road								
	LHS		1	100.00	6.60	--	660.00		
	RHS		1	100.00	6.50	--	650.00		
	3rd Cross Road								
	LHS		1	100.00	6.70	--	670.00		
	RHS		1	100.00	6.70	--	670.00		
	4th Cross Road								
	LHS		1	100.00	6.70	--	670.00		
	RHS		1	100.00	6.90	--	690.00		
	2nd A Mn Rd		1	40.00	6.60	--	264.00		
	7th Cross Road								
	LHS		1	100.00	7.10	--	710.00		
	Rhs		1	100.00	7.00	--	700.00		
	5th Cross Road		1	200.00	7.50	--	1500.00		
	6th Cross Road		1	200.00	7.00		1400.00		
	2nd Main Road		1	195.00	6.60	--	1287.00		
	1st Mn Rd		1.00	360.00	4.80	--	1728.00		
							12929.00		
	Deduct prime coat						-2938.25		
							9990.75	3.18	**31770.59**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
8	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)								
	Hegadenagara Eastern Side	Sqm							
	For Laying BC								
	1st Cross Road								
	LHS		1	100.00	6.80	--	680.00		
	RHS		1	100.00	6.50	--	650.00		
	2nd Cross Road								
	LHS		1	100.00	6.60	--	660.00		
	RHS		1	100.00	6.50	--	650.00		
	3rd Cross Road								
	LHS		1	100.00	6.70	--	670.00		
	RHS		1	100.00	6.70	--	670.00		
	4th Cross Road								
	LHS		1	100.00	6.70	--	670.00		
	RHS		1	100.00	6.90	--	690.00		
	2nd A Mn Rd		1	40.00	6.60	--	264.00		
	7th Cross Road								
	LHS		1	100.00	7.10	--	710.00		
	Rhs		1	100.00	7.00	--	700.00		
	5th Cross Road		1	200.00	7.50	--	1500.00		
	6th Cross Road		1	200.00	7.00	--	1400.00		
	2nd Main Road		1	195.00	6.60	--	1287.00		
	1st Mn Rd		1	360.00	4.80	--	1728.00		
							12929.00	12.72	**164456.88**
9	KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)								
	Hegadenagara Eastern Side	Cum							
	For Laying BC								
	1st Cross Road								
	LHS		1	100.00	6.80	0.04	27.20		
	RHS		1	100.00	6.50	0.04	26.00		
	2nd Cross Road								
	LHS		1	100.00	6.60	0.04	26.40		
	RHS		1	100.00	6.50	0.04	26.00		
	3rd Cross Road								
	LHS		1	100.00	6.70	0.04	26.80		
	RHS		1	100.00	6.70	0.04	26.80		
	4th Cross Road								
	LHS		1	100.00	6.70	0.04	26.80		
	RHS		1	100.00	6.90	0.04	27.60		
	2nd A Mn Rd		1	40.00	6.60	0.04	10.56		
	7th Cross Road								
	LHS		1	100.00	7.10	0.04	28.40		
	Rhs		1	100.00	7.00	0.04	28.00		
	5th Cross Road		1	200.00	7.50	0.04	60.00		
	6th Cross Road		1	200.00	7.00	0.04	56.00		
	2nd Main Road		1	195.00	6.60	0.04	51.48		
	1st Mn Rd		1	360.00	4.80	0.04	69.12		
							517.16	8118.54	**4198584.15**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
10	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)								
	Edge line	Sqm	2	1995.00	0.10	--	399.00		
							399.00	542.72	**216545.28**
	Bore Well								
11	Geophysical investigation of site for sinking Borewell for supplying drinking water to the habitation either through the Hand pump, MWS of P.W.S.S by vertical electrical sounding by adopting Venner or Schlumberger's method, including reconnaissance survey of geological formation, Gerophysical investigation of existing Ground Wate in the vicinity, its qualityf 1.0 meter in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site., engaging techinical personal and labour required etc., as per Specification and direction (P.48, I. 9.4) PRED.SR 2012-13	Each BW							
			4				4	1882.00	7528.0
12	Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above CFM & above in all strats including over burden upto 20 mts fixing of casing pipes, collars and cap with necessary cutting, throading and welding including transportation of rig and supporing vehicles, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (excluding coat of casing pipes, collars, cap etc.,) P. 46 / I. 9.1 PRED SR 2012-13	Rmtr							
	0 to 50 m		4	50.00			200.00	306.00	**61200.00**
	50 to 100 m		4	50.00			200.00	400.00	**80000.00**
	100 to 150 m		4	50.00			200.00	445.00	**89000.00**
	150 to 200 m		4	50.00			200.00	470.00	**94000.00**
	200 to 250 m		4	50.00			200.00	544.00	**108800.00**
	250 to 300 m		4	50.00			200.00	583.00	**116600.00**
	300 to 350 m		4	50.00			200.00	622.00	**124400.00**
	Above 350m		4	50.00			200.00	658.00	**131600.00**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
13	Supply of ISI mark 175 mm nominal bore, Plain end steel casing pipe - grade of Steel Fee 410 of wall thickness 5.4mm thick confirming to IS 4270:2001 and latest amendments, electric resistance welded steel tube material and confirming to IS 1387/1993 and manufactured by baseic open hearth electric or basic oxygen process in random length of 5 to 7 mts both ends threaded confirming tio IS 554/1985, one end fixied with socket confirming to IS 4270:2001 and the other end with screwed pipes ISI Marking weighing 25.10Kg/mtr (Inclusive of all taxes and durties) Prices include Collar-medium duty P. iii, I No. 84 PRED SR 2012-13	Rmtr	4	50.00			200.00	1325.00	**265000.00**
14	Providing 250mm dia PVC Pipe 6kg/cm SE PRED Approved Rate	Rmtr	4	18.00			72.00	754.47	**54321.84**
15	Providing and fixing 160mm Borewell Cap P. iii, I No. 85	Each	4				4	100.00	**400.00**
16	Supply and delivery at site brand New texmo/ innoval/ Lubi/ Sabar / Atalanta/ Calamal/ make suitable for vertical installation in 150mm dia bore well comprising of single stage or multistage CF pump close coupled by measns of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage submersible induction motor suitable for opertation of 3PH., 50 Hz, 380/440 volts AC supply fitted with required aqccessories such as suction, casing suction strainers sand guard Non return value etc. complete . The pump and motor shall form an integral unit with all the required fittings 12.50 HP 25 stage. ATALANTA< SUGNA< CRI, KIRLOSKAR and other Equivalent Pumps PWD SR 2016-17 P. XXXXII Item No. 24 including of all taxes	No							
	17.5 HP 30 Stage		4				4	74300	297200.0
17	Supplying of ISI marked galvanized mild steel tube (continously welded electric resistance welded (ERW) high frequency, induction welded (HFIW) Hot finished welded type of nominal bore given below screwed at both ends as per IS 554/1986 with latest amendments, pipes threaftes at one end and the other end protected asper specification in random lengths of 4 to 7 mtrs Confirming to IS 1239 part I/1990 with amendament 1-5 and with all its latest amendements if any. The pipes supplied should be with BIS mark No 3/08-09 2406/15.10.2008	Rmtr	4	250.00			1000.00	375.00	**375000.00**
18	Heavy Duty Collar 50 mm dia	Nos	176				176	130.00	**22880.00**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
19	Supplying and drawing 3 core flat PVC sheathed submersible pump cable manufactured with electrolytic grade copper with flexible copper with low resistance conductor confirming to table 3 class 5 of IS:8130-1984 and virgin grade PVC insulation and powder coating extruded PVC sheathed suitable for working voltage upto 1100Volts as per IS-694:1990 & confirming to GTP of GROUP-A. P. No. 12 / I No. 2.10.4(1) 3C x 6 Sqm mm KPWD Electrical SR 2014-15	Mtr							
			8	255.00			2040.00	188.70	384948.0
20	Erection of pumpset including aligning and balancing with all necessary erection materials and labour including supply and erection of one pair supporting clamps, one borewell cap. Cable clips with bolts, nuts, valves guages etc., involoved in the job (Necessary GI pipe and specials with be supplied by the board at the site free of cost) (As per rate approved KUWS & DB for year 2008-09	No							
			4				4	3000.00	12000.0
21	Supplying and fixing 20"x20"x2.5" polished wood board made of not less than 15mm thick plank on both sides with planks made out of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws etc., P No. 44 / I No. 6.6.6 KPWD Electrical SR 2014-15	Each							
			4				4	302.00	**1208.00**
22	Supplying of 1.1 KV LT UG cable having aluminum conductor PVC insulated, extruded inner sheathed, galvanized, steel strip (except 2CX10Sq.mm wire armoured) confirming to IS-3975:1990 (No. of Strip indicated in GTP) & extruded PVC outer sheathed armoured cable with specified IS-1554 Part-1:1988 & confirming to GTP of GROUP-A P No. 55/ I No. 7.4.4 4 core 16 Sqmm KPWD Electrical SR 2014-15	Mtr							
			4	30.00			120.00	140.40	**16848.00**
23	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required.In existing trench/duct. P No. 61 / I No. 7.8.1 6Sqmm to 16 Sqmm) KPWD Electrical SR 2014-15	Mtr							
			4	30.00			120.00	10.80	**1296.00**
24	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete.(As per Civil SR KSRB I-2, P-7) P No. 61 / I. No. 7.9.3 KPWD Electrical SR 2014-15	Mtr							
	For Cutting Road Surface		4	25.00			100.00	85.00	**8500.00**
25	Supplying and fixing of class A (medium duty) GI pipe of wall thickness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV P. No. 62 / I No. 7.12.1 KPWD Electrical SR 2014-15	Mtr							
	40mm dia GI pipe		4	4.00			16.00	345.00	**5520.00**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
26	Supplying and fixing L.T. cast Iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc., P. No. 62 / I.No. 7.13.2 KPWD Electrical SR 2014-15	No.							
	16Sqmm		4				4.00	280.00	**1120.00**
27	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 122 mm dia, (P No. 55, I No. 7.1) KPWD Electrical SR 2014-15	No							
			4				4	2727.00	**10908.00**
28	Supplying & fixing of Porcelain fuse channel with cut out on existing wooden/panel using necessary nuts, bolts and washers.P No. 44 / I No. 6.7.2 KPWD Electrical SR 2014-15	No.							
	32 Amps		24				24	180.00	**4320.00**
29	KSRB 13-7.1-4: Providing and fixing in position 50mm nominal bore gun metal non-return valve horizontal type of approved make including cost of all materials, labour and HOM of equipments with all leads complete as per specifications NO KBS 13.2.16 / 13.13 Page No. 93 Item No. 13.55 / PWD SR 2016-17	Nos							
			4				4	1615.68	**6462.72**
	Basic Rate	1496.00							
	Area Weightage @ 8%	119.68							
	Total	1615.68							
30	Providing NP/CP waste unions conforming to ISI specifications and fixing them in position as per directions including cost of materials, fixtures and conveyance to work spot etc., complete. P. No. 95 / I. No. 13.81.3 PWD SR 2016-7	No							
	50mm dia		4				4	232.20	**928.80**
	Basic Rate	215.00							
	Area Weightage @ 8%	17.20							
	Total	232.20							
31	Supplying and fixing 50mm dia GI X nipple with ISI mark with all lead and lift loading unloading and labour charges etc complete	No							
			4	4.00			16	80.00	**1280.00**
32	Supplying shunt capaitors conforming to IS 2834, 3phase 400/440 volts grade for power factor improvement of rotating machinery, Capacitor in KVAR rating Nos. 2KVAR capacity with all lead and lift =, loading, unloading and labour charges etc complete as per specifications	No							
			4				4	350.00	**1400.00**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
33	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898. 5-32Amps TPN P No. 47 / I No.6.16.5 KPWD SR 2014-15	No							
			4				4	1547.00	**6188.00**
34	Fabricating supplying and mounting MS box made out ... SWG suitable for floor / wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished with 2 coats of red oxide primer paint and finally finished with approved colour enameled metal paint etc., complete P.No. 49, I. No. 6.40.2 KPWD Electrical SR 2014-15	Sq.Cm							
	16SWG		8	120.00	60.00		57600		
			4	300.00	25.00		30000		
							87600	0.33	**28908.00**
35	Supplying and delivery at site brand new star / Essen/ Lotus/Sun-shines/Adarsh/ GK Controls best indigenous make combined energy meter - cum- control panel board unit of size 600x450 x200 mm minimum mechanically strong vermin and water proof. The unit shall have two detachable doors suitable for operation on 3 ph, 50Hz, 380/440 volts, A.C supply with spring loaded latch, locking device with a key ribs should be provided inside the door, canopy apron and louvers ventilators shall be provided. the combined energy meter cum- control panel board unit suitable for operation. The panel board shall be fabricated on single unit in the above components for suitable pumpset. 12.5HP to 15 HP Star Delta Starter SERDED Rate	No.							
			4				4	11000	**44000.00**
36	Earthwork excavation for pipeline trenches including deporiting or bank up to a lead of 50 mtrs including shiriry and statting danger lighting and using site rails and boming poles at every 100 mtrs wherever necessary as directed in th following strructure manhole. Page No. 01/ Item No.1.2.2 / PRED SR 2012-13 Hard Soil	Cum							
			4	60.00	0.60	0.75	108.00		
							108.00	188.00	**20304.00**
	Basic Rate	188.00							

Sl. No.	Description	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
37	Providing and f works P.V.C.Pipes including cost of pipes and specials and incluidng lowring into trenches, laying true to line, level and perfect linking at joints, leak proof including jointing encasing the pipe alround to a depth Not less than 15cm with grave or selected earth avalabile from the execavation Etc., Page No.15 item No.3.4.2 b PRED SR 2012-13.	Rmtr							
	75 mm dia 6 KSC PVC pipe		4	60.00			240.00		
							240.00	157.00	**37680.00**
38	Refilling the basement and pipeline treanches with secleted available earthe for trench excavation including authority condition in layers from thedi including disponsary of the sunplus earth with a heavy 200 mtrs Page No. 3 / Item No. 1.6 / PRED SR 2012-13	Cum							
			Qty. Vide Item No. 27				108.00	61.00	**6588.00**
	Basic Rate	61.00							
39	KSRB 13.6.3-6 : Providing and fixing in position brass gate valve with C.I wheel of approved quality (screwed end) 50mm nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No. KBS 13.2.6/13.3 P. 92 / I.13.37 PWD SR - 2016-17	Each							
			8				8	2216.16	**17729.28**
	Basic Rate	2052.00							
	Area Weightage @ 8%	164.16							
	Total	2216.16							
								Total Construction Cost	**9803638.70**
40								**Cost towards Preparation of DPR LS**	**98037.00**
41								**Cost towards PMC / Third Party inspection LS**	**98037.00**
								Sub Total	**9999712.70**
42								**Miscellaneous and rounding off**	**287.30**
								Total	**10000000.00**

Certificate.

1 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Tejus Consultants

Assistant Engineer

Assistant Executive Engineer

Executive Engineer
Byatarayanapura Division
Yalahanka Zone, B.B.M.P.
Bangalore-560092

BRUHAT BANGALORE MAHANAGARA PALIKE

Project: Improvement to Drains and Asphalting to Roads at Hegadenagara Westren Side Cross Roads in Ward No.06(Thanisandra), Byatarayanapura Sub Division

Est Cost: =100.0Lakh

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
1	Removing and resetting of footpath slab (P.No.265, I.No.37.56 of PW, P&IWTD SR 2016-17)								
	Hegadenagara Western Side								
	Ch 0-260		2	260.00	1.20	--	624.00		
	Damaged slabs/missing 20%						-124.80		
							499.20	**132.5**	**66144.00**
2	Providing and fixing **RCC Precast cover slab of 100mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	Cover Slab	Sqm							
	Damaged slabs/missing 20%						124.80		
							124.80	1738.00	**216902.40**
3	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	Desilt	Cum							
	Hegadenagara Western Side								
	Ch 0-260		2	260.00	0.60	0.60	187.20		
	Ch 260-500		2	240.00	0.60	0.60	172.80		
	Ch 500-700		2	200.00	0.60	0.60	144.00		
	Police Quters								
	3rd Cross Road		2	190.00	0.60	0.60	136.80		
	Cross Road -1		2	55.00	0.60	0.60	39.60		
	Cross Road -2		2	55.00	0.60	0.60	39.60		
	4th Cross Road		2	185.00	0.60	0.60	133.20		
	5th Cross Road		2	170.00	0.60	0.60	122.40		
	1st Cross Road		2	160.00	0.60	0.60	115.20		
	W Block Road		2	40.00	0.60	0.60	28.80		
	X Block Road		2	40.00	0.60	0.60	28.80		
	Y Block Front Road		2	40.00	0.60	0.60	28.80		
	Y Block Back Road		1	40.00	0.60	0.60	14.40		
							1191.60	202.92	**241799.47**
4	Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)								
	Hegadenagara Western Side	Sqm							
	Ch 260-500		2	240.00	1.80		864.00		
	Ch 500-700		2	200.00	1.80		720.00		
	Police Quters								
	3rd Cross Road		2	190.00	1.80		684.00		
	Cross Road -1		2	55.00	1.80		198.00		
	Cross Road -2		2	55.00	1.80		198.00		
	4th Cross Road		2	185.00	1.80		666.00		
	5th Cross Road		2	170.00	1.80		612.00		
	1st Cross Road		2	160.00	1.80		576.00		
	W Block Road		2	40.00	1.80		144.00		
	X Block Road		2	40.00	1.80		144.00		
	Y Block Front Road		2	40.00	1.80		144.00		
	Y Block Back Road		1	40.00	1.80		72.00		
	Consider 30% For R&R						1506.60		
	Consider 20% for Damaged and Missing Slabs						-301.32		
							1205.28	80.56	**97097.36**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
5	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)								
	For BS Slab Drain	Sqm							
	Consider 20% for Damaged and Missing Slabs						301.32		
							301.32	665.68	**200582.70**
6	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17)								
	Road Portion	Cum							
	Police Quters								
	3rd Cross Road		1.00	190.00	5.40	0.23	235.98		
	Cross Road -1		1.00	55.00	6.00	0.23	75.90		
	Cross Road -2		1.00	55.00	6.00	0.23	75.90		
	4th Cross Road		1.00	185.00	7.50	0.23	319.13		
	5th Cross Road		1.00	170.00	7.20	0.23	281.52		
	1st Cross Road		1.00	160.00	7.25	0.23	266.80		
	W Block Road		1.00	40.00	5.20	0.23	47.84		
	X Block Road		1.00	40.00	5.00	0.23	46.00		
	Y Block Front Road		1.00	40.00	5.30	0.23	48.76		
	Y Block Back Road		1.00	40.00	5.20	0.23	47.84		
	DCP Office Back Side Road		1.00	120.00	7.20	0.23	198.72		
	Hegadenagar UGD Cutting		1.00	700.00	1.00	0.23	161.00		
	Bad Reaches (Hegadenagar)		5.00	2.50	2.50	0.23	7.19		
			3.00	2.00	1.50	0.23	2.07		
			2.00	1.50	1.50	0.23	1.04		
							1815.68	164.76	**299151.02**
7	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub-base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17)								
	Police Quters	Cum							
	3rd Cross Road		1.00	190.00	5.40	0.23	235.98		
	Cross Road -1		1.00	55.00	6.00	0.23	75.90		
	Cross Road -2		1.00	55.00	6.00	0.23	75.90		
	4th Cross Road		1.00	185.00	7.50	0.23	319.13		
	5th Cross Road		1.00	170.00	7.20	0.23	281.52		
	1st Cross Road		1.00	160.00	7.25	0.23	266.80		
	W Block Road		1.00	40.00	5.20	0.23	47.84		
	X Block Road		1.00	40.00	5.00	0.23	46.00		
	Y Block Front Road		1.00	40.00	5.30	0.23	48.76		
	Y Block Back Road		1.00	40.00	5.20	0.23	47.84		
	DCP Office Back Side Road		1.00	120.00	7.20	0.23	198.72		
	Hegadenagar UGD Cutting		1.00	700.00	1.00	0.23	161.00		
	Bad Reaches (Hegadenagar)		5.00	2.50	2.50	0.23	7.19		
			3.00	2.00	1.50	0.23	2.07		
			2.00	1.50	1.50	0.23	1.04		
							1815.68	1768.08	**3210263.07**
8	KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17)								
	Police Quters	Cum							
	3rd Cross Road		1.00	190.00	5.40	--	1026.00		
	Cross Road -1		1.00	55.00	6.00	--	330.00		

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	Cross Road -2		1.00	55.00	6.00	--	330.00		
	4th Cross Road		1.00	185.00	7.50	--	1387.50		
	5th Cross Road		1.00	170.00	7.20	--	1224.00		
	1st Cross Road		1.00	160.00	7.25	--	1160.00		
	W Block Road		1.00	40.00	5.20	--	208.00		
	X Block Road		1.00	40.00	5.00	--	200.00		
	Y Block Front Road		1.00	40.00	5.30	--	212.00		
	Y Block Back Road		1.00	40.00	5.20	--	208.00		
	DCP Office Back Side Road		1.00	120.00	7.20	--	864.00		
	Hegadenagar UGD Cutting		1.00	700.00	1.00	--	700.00		
	Bad Reaches (Hegadenagar)		5.00	2.50	2.50	--	31.25		
			3.00	2.00	1.50	--	9.00		
			2.00	1.50	1.50	--	4.50		
							7894.25	27.56	**217565.53**
9	KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.161, I.No.21.2 of PW,P&IWTD SR 2016-17)								
	Hegadenagar	Sqm							
	Ch 0-260		1.00	260.00	9.00	--	2340.00		
	Ch 260-500		1.00	240.00	10.00	--	2400.00		
	Ch 500-700		1.00	200.00	10.00	--	2000.00		
	DCP Office Front Road		1	120.00	7.20	--	864.00		
	Deduct prime coat						-44.75		
							7559.25	3.18	**24038.42**
10	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)								
		Sqm							
	For Laying BC								
	Police Quters								
	3rd Cross Road		1	190.00	5.40	--	1026.00		
	Cross Road -1		1	55.00	6.00	--	330.00		
	Cross Road -2		1	55.00	6.00	--	330.00		
	4th Cross Road		1	185.00	7.50	--	1387.50		
	5th Cross Road		1	170.00	7.20	--	1224.00		
	1st Cross Road		1	160.00	7.25	--	1160.00		
	W Block Road		1	40.00	5.20	--	208.00		
	X Block Road		1	40.00	5.00	--	200.00		
	Y Block Front Road		1	40.00	5.30	--	212.00		
	Y Block Back Road		1	40.00	5.20	--	208.00		
	DCP Office Back Side Road		1	120.00	7.20	--	864.00		
	DCP Office Front Road		1	120.00	7.20	--	864.00		
	Hegadenagar								
	Ch 0-260		1	260.00	9.00	--	2340.00		
	Ch 260-500		1	240.00	10.00	--	2400.00		
	Ch 500-700		1	200.00	10.00	--	2000.00		
							14753.50	12.72	**187664.52**
11	KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)								
		Cum							
	Police Quters								
	3rd Cross Road		1	190.00	5.40	0.04	41.04		
	Cross Road -1		1	55.00	6.00	0.04	13.20		

Sl. No.	Description of work			Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
	Cross Road -2			55.00	6.00	0.04	13.20		
	4th Cross Road			185.00	7.50	0.04	55.50		
	5th Cross Road		1	170.00	7.20	0.04	48.96		
	1st Cross Road		1	160.00	7.25	0.04	46.40		
	W Block Road		1	40.00	5.20	0.04	8.32		
	X Block Road		1	40.00	5.00	0.04	8.00		
	Y Block Front Road		1	40.00	5.30	0.04	8.48		
	Y Block Back Road		1	40.00	5.20	0.04	8.32		
	DCP Office Back Side Road		1	120.00	7.20	0.04	34.56		
	DCP Office Front Road		1	120.00	7.20	0.04	34.56		
	Hegadenagar								
	Ch 0-260		1	260.00	9.00	0.04	93.60		
	Ch 260-500		1	240.00	10.00	0.04	96.00		
	Ch 500-700		1	200.00	10.00	0.04	80.00		
							590.14	8118.54	**4791075.20**
12	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)								
	Edge line	Sqm	2	1915.00	0.10	--	383.00		
	Center Line		0.5	1455.00	0.10	--	72.75		
							455.75	542.72	**247344.64**
							Total Construction Cost		**9799628.328**
13							**Cost towards Preparation of DPR LS**		**97997.00**
14							**Cost towards PMC / Third Party inspection LS**		**97997.00**
								Sub Total	**9995622.33**
15							**Miscellaneous and rounding off**		**4377.67**
								Total	**10000000.00**

Certificate.

1 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Tejus Consultants

Assistant Engineer

Assistant Executive Engineer

Executive Engineer
Byatarayanapura Division
Yelahanka Zone, B.B.M.P.
Bangalore-560092

BRUHAT BANGALORE MAHANAGARA PALIKE

Project: 15.Providing and Asphalting in Police Qutres main Road and Cross Road in Ward No.06(Thanisandra), Byatarayanapura Sub Division

Est Cost: =30.0Lakh

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
1	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	Desilt	Cum							
	Police Quatres Main Road		2	400.00	0.55	0.45	198.00		
	2nd Cross Road		2	125.00	0.55	0.45	61.88		
							259.88	202.92	**52733.84**
2	Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)								
	Police Qutres	Sqm							
	Police Quatres Main Road		2	400.00	1.80		1440.00		
	2nd Cross Road		2	125.00	1.80		450.00		
							1890.00		
	Consider 20% For R&R						378.00		
	Consider for Damaged and Missing Slabs						-68.04		
							309.96	80.56	**24970.38**
3	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)								
	For BS Slab Drain	Sqm							
	Consider for Damaged and Missing Slabs						68.04		
							68.04	665.68	**45292.87**
4	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17)								
	Road Portion	Cum							
	Police Qutres								
	Police Quatres Main Road		2.00	400.00	1.20	0.23	220.80		
	2nd Cross Road		1.00	125.00	7.20	0.23	207.00		
	UGD Cutting		1.00	400.00	1.20	0.23	110.40		
	DCP Office - Gate 2		1.00	48.00	7.00	0.23	77.28		
							615.48	164.76	**101406.48**
5	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17)								
	Police Qutres	Cum							
	Police Quatres Main Road		2	400.00	1.20	0.23	220.80		
	2nd Cross Road		1	125.00	7.20	0.23	207.00		
	UGD Cutting		1	400.00	1.20	0.23	110.40		
	DCP Office - Gate 2		1	48.00	7.00	0.23	77.28		
							615.48	1768.08	**1088217.88**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
6	KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17)								
	Police Qutres	Cum							
	Police Quatres Main Road		2	400.00	1.20	--	960.00		
	2nd Cross Road		1	125.00	7.20	--	900.00		
	UGD Cutting		1	400.00	1.20	--	480.00		
	DCP Office - Gate 2		1	48.00	7.00	--	336.00		
							2676.00	27.56	**73750.56**
7	KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.161, I.No.21.2 of PW,P&IWTD SR 2016-17)								
	Police Qutres	Sqm							
	Police Quatres Main Road		1	400.00	3.40	--	1360.00		
	DCP Office - Gate 2		1	50.00	7.00	--	350.00		
							1710.00	3.18	**5437.80**
8	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)								
	Police Qutres	Sqm							
	For Laying BC								
	Police Quatres Main Road		1	400.00	7.00	--	2800.00		
	2nd Cross Road		1	125.00	7.20	--	900.00		
	DCP Office - Gate 2		1	98.00	7.00	--	686.00		
							4386.00	12.72	**55789.92**
9	KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)								
	Police Qutres	Cum							
	For Laying BC								
	Police Quatres Main Road		1	400.00	7.00	0.04	112.00		
	2nd Cross Road		1	125.00	7.20	0.04	36.00		
	DCP Office - Gate 2		1	98.00	7.00	0.04	27.44		
							175.44	8118.54	**1424316.66**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
10	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)								
	Edge line	Sqm	2	623.00	0.10	--	124.60		
							124.60	542.72	**67622.91**
								Total Construction Cost	**2939539.297**
11								**Cost towards Preparation of DPR LS**	**29396.00**
12								**Cost towards PMC / Third Party inspection LS**	**29396.00**
								Sub Total	**2998331.30**
13								**Miscellaneous and rounding off**	**1668.70**
								Total	**3000000.00**

Certificate.

1 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Tejus Consultants

Assistant Engineer

Assistant Executive Engineer

Executive Engineer

Executive Engineer
Byatarayanapura Division
Yelahanka Zone, B.B.M.P.
Bangalore-560092

BRUHAT BANGALORE MAHANAGARA PALIKE

Project: 16.Improvement of Drains and Asphalting to Road at Bhuvaneshwarinagara Cross Roads in Ward No.06(Thanisandra), Byatarayanapura Sub Division

Est Cost: 45.0Lakh

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
1	KSRRB 200-8. Clearing and grubbing road land including uprooting rank vegetation, grass, brush, shrubs, saplings and trees of girth upto 300mm, by manual means, in area of light jungle, removal of stumps, disposal of unserviceable materials, stacking of serviceable materials labour charges complete as per specifications. MORTH / Chapter 2 (P.No.136, I.No.18.11 of PW, P&IWTD SR 2016-17)								
	Vegetation Clearance	Cum							
	Bhuvaneshwari Nagar								
	17th cross		2	275.00	1.00		550.00		
	16th Cross		2	270.00	1.00		540.00		
	15th Cross		2	275.00	1.00		550.00		
	14th Cross		2	270.00	1.00		540.00		
	Connecting Road B/W 14th and 17th Cross		2	90.00	1.00		180.00		
							2360.00	6.36	**15009.60**
2	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	Desilt	Cum							
	Bhuvaneshwari Nagar								
	17th cross		2	275.00	0.60	0.50	165.00		
	16th Cross		2	270.00	0.60	0.50	162.00		
	15th Cross		2	275.00	0.60	0.55	181.50		
	14th Cross		2	270.00	0.60	0.50	162.00		
	Connecting Road B/W 14th and 17th Cross		2	90.00	0.60	0.50	54.00		
	4th Cross Road		2	280.00	0.60	0.50	168.00		
	New Drain								
	Cross Road		1	100.00	0.75	0.60	45.00		
	Culvert		3	6.50	2.00	1.20	46.80		
							984.30	202.92	**199734.16**
3	Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)								
	Desilt	Sqm							
	Bhuvaneshwari Nagar								
	17th cross		2	275.00	1.80		990.00		
	16th Cross		2	270.00	1.80		972.00		
	15th Cross		2	275.00	1.80		990.00		
	14th Cross		2	270.00	1.80		972.00		
	Connecting Road B/W 14th and 17th Cross		2	90.00	1.80		324.00		
	4th Cross Road		2	280.00	1.80		1008.00		
	Consider 40% for R&R						2102.40		
	Consider 20% for Damaged and Missing Slabs						-420.48		
	Bs Cover		2	180.00	1.20		432.00		
	Consider 20% for Damaged and Missing Slabs						-86.40		
							2027.52	80.56	**163337.01**
4	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)								
	For BS Slab Drain	Sqm							

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	Bhuvaneshwari Nagar								
	Cross Road		1	100.00	1.80		180.00		
	Consider 20% for Damaged and Missing Slabs						420.48		
							600.48	665.68	**399727.53**
5	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 10cms thick (P.No.25, I.No.5.31.2 of PW, P&IWTD SR 2016-17)								
	For BS Slab Drain Cover	Sqm							
	Consider 20% for Damaged and Missing Slabs						86.40		
							86.40	825.74	**71343.94**
6	KSRB 5.2-3: Providing and constructing granite size stone masonry in foundation cement mortor 1:6, stone hammered dressed in courses not less than 20cms high, bond stones at 2m. apart in each course including cost of materaials, labour, curing complete as per specifications. Specifcation No. KBS 5.1.13.(using available stones) (P.No.23, I.No.5.6 of PW, P&IWTD S.R 2016-17)								
	Bhuvaneshwari Nagar	Cum							
		2	3	6.50	0.60	1.05	24.57		
							24.57	4438.22	**109047.07**
7	KSRB 15.1.1 Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications. (P.No.113, I.No.15.1 of PW, P&IWTD S.R 2016-17)								
	Bhuvaneshwari Nagar	Cum							
		2	3	6.50		1.05	40.95		
							40.95	102.82	**4210.48**
8	KSRB 4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.6 of PW,P&IWTD S.R 2016-17)								
	Coping	Cum							
		2	3	6.50	0.60	0.100	2.34		
							2.34	5767.46	**13495.86**
9	Providing and fixing **RCC Precast cover slab of 250mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
		Sqm							
	Culvert Slab		3	6.50	1.80	--	35.10		
							35.10	4951.00	**173780.10**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
10	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17)								
	Road Cut Portion	Cum							
	Bhuvaneshwari Nagar								
	17th cross		1	125.00	0.50	0.23	14.38		
	16th Cross		1	270.00	1.20	0.23	74.52		
	15th Cross		1	275.00	1.20	0.23	75.90		
	Connecting Road B/W 14th and 17th Cross		1	90.00	1.50	0.23	31.05		
	Bad Reaches		8	2.50	2.80	0.23	12.88		
			11	1.50	1.80	0.23	6.83		
			14	0.60	5.50	0.23	10.63		
							226.18	164.76	**37265.75**
11	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17)								
	Road Cut Portion	Cum							
	Bhuvaneshwari Nagar								
	17th cross		1	125.00	0.50	0.23	14.38		
	16th Cross		1	270.00	1.20	0.23	74.52		
	15th Cross		1	275.00	1.20	0.23	75.90		
	Connecting Road B/W 14th and 17th Cross		1	90.00	1.50	0.23	31.05		
	Bad Reaches		8	2.50	2.80	0.23	12.88		
			11	1.50	1.80	0.23	6.83		
			14	0.60	5.50	0.23	10.63		
							226.18	1768.08	**399907.87**
12	KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17)								
	Road Cut Portion	Sqm							
	Bhuvaneshwari Nagar								
	17th cross		1	125.00	0.50	--	62.50		
	16th Cross		1	270.00	1.20	--	324.00		
	15th Cross		1	275.00	1.20	--	330.00		
	Connecting Road B/W 14th and 17th Cross		1	90.00	1.50	--	135.00		
	Bad Reaches		8	2.50	2.80	--	56.00		
			11	1.50	1.80	--	29.70		
			14	0.60	5.50	--	46.20		
							983.40	27.56	**27102.50**
13	KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.161, I.No.21.2 of PW,P&IWTD SR 2016-17)								
	For Laying BC	Sqm							
	Bhuvaneshwari Nagar								
	17th cross		1	275.00	4.80	--	1320.00		
	16th Cross		1	270.00	5.40	--	1458.00		
	15th Cross		1	275.00	5.30	--	1457.50		
	14th Cross		1	270.00	5.60	--	1512.00		
	Connecting Road B/W 14th and 17th Cross		1	90.00	5.80	--	522.00		

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	4th Cross Road		1	280.00	5.30	--	1484.00		
							7753.50		
	Deduct prime coat						983.40		
							6770.10	3.18	**21528.92**
14	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)								
	Road Portion	Sqm							
	For Laying BC								
	Bhuvaneshwari Nagar								
	17th cross		1	275.00	4.80	--	1320.00		
	16th Cross		1	270.00	5.40	--	1458.00		
	15th Cross		1	275.00	5.30	--	1457.50		
	14th Cross		1	270.00	5.60	--	1512.00		
	Connecting Road B/W 14th and 17th Cross		1	90.00	5.80	--	522.00		
	4th Cross Road		1.00	280.00	5.30	--	1484.00		
							7753.50	12.72	**98624.52**
15	KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)								
	Road Portion	Cum							
	Bhuvaneshwari Nagar								
	17th cross		1	275.00	4.80	0.04	52.80		
	16th Cross		1	270.00	5.40	0.04	58.32		
	15th Cross		1	275.00	5.30	0.04	58.30		
	14th Cross		1	270.00	5.60	0.04	60.48		
	Connecting Road B/W 14th and 17th Cross		1	90.00	5.80	0.04	20.88		
	4th Cross Road		1	280.00	5.30	0.04	59.36		
							310.14	8118.54	**2517884.00**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
16	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)								
	Edge line	Sqm	2	1460.00	0.10	--	292.00		
							292.00	542.72	**158474.24**
								Total Construction Cost	**4410473.537**
17								**Cost towards Preparation of DPR LS**	**44105.00**
18								**Cost towards PMC / Third Party inspection LS**	**44105.00**
								Sub Total	**4498683.54**
19								**Miscellaneous and rounding off**	**1316.46**
								Total	**4500000.00**

Certificate.

1 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Tejus Consultants

Assistant Engineer

Assistant Executive Engineer

Executive Engineer
Executive Engineer
Byatarayanapura Division
B.B.M.P.
Bangalore-560092

BRUHAT BANGALORE MAHANAGARA PALIKE

Project: 17.Improvement of Drains and Asphalting to Road at Dasarahalli Surrounding area in Ward No.06(Thanisandra), Byatarayanapura Sub Division

Est Cost: = 45.0Lakh

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
1	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	Dasarahalli Village	Cum							
	Main Road From SWD to Dead End		2	180.00	0.75	0.70	189.00		
	Cross Road LHS		1	110.00	0.75	0.70	57.75		
	Cross Road RHS		2	50.00	0.75	0.70	52.50		
	Culverts		4	6.50	2.00	1.25	65.00		
							364.25	202.92	**73913.61**
2	KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17)								
	Bed Concrete	Cum							
	Dasarahalli Village								
	Culverts		4.00	6.50	2.00	0.15	7.80		
							7.80	5348.76	**41720.33**
3	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)								
	For BS Slab Drain	Sqm							
	Dasarahalli Village								
	Main Road From SWD to Dead End		2	180.00	1.80		648.00		
	Cross Road LHS		1	110.00	1.80		198.00		
	Cross Road RHS		2	50.00	1.80		180.00		
							1026.00	665.68	**682987.68**
4	KSRB 5.2-3: Providing and constructing granite size stone masonry in foundation cement mortor 1:6, stone hammered dressed in courses not less than 20cms high, bond stones at 2m. apart in each course including cost of materaials, labour, curing complete as per specifications. Specifcation No. KBS 5.1.13.(using available stones) (P.No.23, I.No.5.6 of PW, P&IWTD S.R 2016-17)								
	Dasarahalli Village	Cum							
	Culverts	2	4	6.50	0.6	1.10	34.32		
							34.32	4438.22	**152319.71**
5	KSRB 15.1.1 Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications. (P.No.113, I.No.15.1 of PW, P&IWTD S.R 2016-17)								
	Dasarahalli Village	Cum							
	Culverts	2	4	6.50		1.10	57.20		
							57.20	102.82	**5881.30**
6	KSRB 4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.6 of PW,P&IWTD S.R 2016-17)								

Sl.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in
	Coping	Cum							
	Culverts		2	4	6.50	0.60	0.075	2.34		
								2.34	5767.46	**13495.86**
7	Providing and fixing **RCC Precast cover slab of 250mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	Culvert Slab	Sqm							
	Culvert Slab		4	6.50	1.80	--	46.80		
							46.80	4951.00	**231706.80**
8	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17)								
	Road Portion	Cum							
	Dasarahalli Village								
	Main Road From SWD to Dead End		1	170.00	7.30	0.23	285.43		
	Cross Road LHS		1	110.00	5.60	0.23	141.68		
	Cross Road RHS		1	50.00	5.00	0.23	57.50		
	High Tension line Rd		1	235.00	7.50	0.23	405.38		
							889.99	164.76	**146633.93**
9	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub-base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17)								
	Dasarahalli Village	Cum							
	Main Road From SWD to Dead End		1	170.00	7.30	0.23	285.43		
	Cross Road LHS		1	110.00	5.60	0.23	141.68		
	Cross Road RHS		1	50.00	5.00	0.23	57.50		
	High Tension line Rd		1	235.00	7.50	0.23	405.38		
							889.99	1768.08	**1573564.68**
10	KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17)								
	Dasarahalli Village	Sqm							
	Main Road From SWD to Dead End		1	170.00	7.30	--	1241.00		
	Cross Road LHS		1	110.00	5.60	--	616.00		
	Cross Road RHS		1	50.00	5.00	--	250.00		
	High Tension line Rd		1	235.00	7.50	--	1762.50		
							3869.50	27.56	**106643.42**
11	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)								
	Dasarahalli Village	Sqm							
	For Laying BC								
	Main Road From SWD to Dead End		1	170.00	7.30	--	1241.00		
	Cross Road LHS		1	110.00	5.60	--	616.00		
	Cross Road RHS		1	50.00	5.00	--	250.00		
	High Tension line Rd		1	235.00	7.50	--	1762.50		
							3869.50	12.72	**49220.04**

Sl.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in
12	KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)								
	Dasarahalli Village	Cum							
	Main Road From SWD to Dead End		1	170.00	7.30	0.04	49.64		
	Cross Road LHS		1	110.00	5.60	0.04	24.64		
	Cross Road RHS		1	50.00	5.00	0.04	10.00		
	High Tension line Rd		1	235.00	7.50	0.04	70.50		
							154.78	8118.54	**1256587.62**
13	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)								
	Edge line	Sqm	2	565.00	0.10	--	113.00		
			0.5	405.00	0.10	--	20.25		
							133.25	542.72	**72317.44**
								Total Construction Cost	**4406992.42**
14								**Cost towards Preparation of DPR LS**	**44069.92**
15								**Cost towards PMC / Third Party inspection LS**	**44069.92**
								Sub Total	**4495132.27**
16								**Miscellaneous and rounding off**	**4867.73**
								Total	**4500000.00**

Certificate.

1 The workspot was inspected and work is found to be necessary.
2 The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
4 The provisions made in the estimate are necessary and essential.

Tejus Consultants

Assistant Engineer

Assistant Executive Engineer

Executive Engineer
Byatarayanapura Division
Bangalore-560092

BRUHAT BANGALORE MAHANAGARA PALIKE

Project: 18.Improvement of Drains and Asphalting to Road at Akashavani Layout in Ward No.06(Thanisandra), Byatarayanapura Sub Division

Est Cost: =30.0Lakh

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
1	KSRRB 200-8. Clearing and grubbing road land including uprooting rank vegetation, grass, brush, shrubs, saplings and trees of girth upto 300mm, by manual means, in area of light jungle, removal of stumps, disposal of unserviceable materials, stacking of serviceable materials labour charges complete as per specifications. MORTH / Chapter 2 (P.No.136, I.No.18.11 of PW, P&IWTD SR 2016-17)								
	Vegetation Clearance	Cum							
	Akashavani Nagar								
	8th Cross Road		2	85.00	1.20		204.00		
	7th Cross Road		2	83.00	1.20		199.20		
	6th Cross Road		2	82.00	1.20		196.80		
	5th Cross Road		2	75.00	1.20		180.00		
	4th Cross Road		2	84.00	1.20		201.60		
	3rd Cross Road		2	88.00	1.20		211.20		
	2nd Cross Road		2	108.00	1.20		259.20		
	1st Cross Road		2	117.00	1.20		280.80		
							1732.80	6.36	**11020.61**
2	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	Desilt	Cum							
	Akashavani Nagar								
	8th Cross Road		2	85.00	0.60	0.60	61.20		
	7th Cross Road		2	83.00	0.60	0.60	59.76		
	6th Cross Road		2	82.00	0.60	0.60	59.04		
	5th Cross Road		2	75.00	0.60	0.60	54.00		
	4th Cross Road		2	84.00	0.60	0.60	60.48		
	3rd Cross Road		2	88.00	0.60	0.60	63.36		
	2nd Cross Road		2	108.00	0.60	0.60	77.76		
	1st Cross Road		2	117.00	0.60	0.60	84.24		
							519.84	202.92	**105485.93**
3	Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)								
	Akashavani Nagar	Sqm							
	8th Cross Road		2	85.00	1.35		229.50		
	7th Cross Road		2	83.00	1.35		224.10		
	6th Cross Road		2	82.00	1.35		221.40		
	5th Cross Road		2	75.00	1.35		202.50		
	4th Cross Road		2	84.00	1.35		226.80		
	3rd Cross Road		2	88.00	1.35		237.60		
	2nd Cross Road		2	108.00	1.35		291.60		
	1st Cross Road		2	117.00	1.35		315.90		
							1949.40		
	Consider Damaged and Missing Slabs						-389.88		
							1559.52	80.56	**125634.93**
4	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)								
	For BS Slab Drain	Sqm							
	Consider Damaged and Missing Slabs						389.88		
							389.88	665.68	**259535.32**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
5	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17)								
	Road Portion	Cum							
	Akashavani Nagar								
	8th Cross Road		1	85.00	5.80	0.23	113.39		
	UGD Cutting								
	7th Cross Road		1	83.00	2.00	0.23	38.18		
	6th Cross Road		1	82.00	2.00	0.23	37.72		
	5th Cross Road		1	75.00	1.90	0.23	32.78		
	4th Cross Road		1	84.00	2.00	0.23	38.64		
	3rd Cross Road		1	88.00	2.00	0.23	40.48		
	2nd Cross Road		1	108.00	2.00	0.23	49.68		
	1st Cross Road		1	117.00	1.90	0.23	51.13		
							401.99	164.76	**66232.53**
6	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17)								
	Akashavani Nagar	Cum							
	8th Cross Road		1	85.00	5.80	0.23	113.39		
	UGD Cutting								
	7th Cross Road		1	83.00	2.00	0.23	38.18		
	6th Cross Road		1	82.00	2.00	0.23	37.72		
	5th Cross Road		1	75.00	1.90	0.23	32.78		
	4th Cross Road		1	84.00	2.00	0.23	38.64		
	3rd Cross Road		1	88.00	2.00	0.23	40.48		
	2nd Cross Road		1	108.00	2.00	0.23	49.68		
	1st Cross Road		1	117.00	1.90	0.23	51.13		
							401.99	1768.08	**710757.55**
7	KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17)								
	Akashavani Nagar	Cum							
	8th Cross Road		1	85.00	5.80	--	493.00		
	UGD Cutting								
	7th Cross Road		1	83.00	2.00	--	166.00		
	6th Cross Road		1	82.00	2.00	--	164.00		
	5th Cross Road		1	75.00	1.90	--	142.50		
	4th Cross Road		1	84.00	2.00	--	168.00		
	3rd Cross Road		1	88.00	2.00	--	176.00		
	2nd Cross Road		1	108.00	2.00	--	216.00		
	1st Cross Road		1	117.00	1.90	--	222.30		
							1747.80	27.56	**48169.37**
8	KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.161, I.No.21.2 of PW,P&IWTD SR 2016-17)								
	Akashavani Nagar	Sqm							
	8th Cross Road		1.00	85.00	5.80	--	493.00		
	7th Cross Road		1.00	83.00	5.90	--	489.70		
	6th Cross Road		1.00	82.00	6.00	--	492.00		
	5th Cross Road		1.00	75.00	6.50	--	487.50		
	4th Cross Road		1.00	84.00	6.30	--	529.20		

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	3rd Cross Road		1.00	88.00	6.50	--	572.00		
	2nd Cross Road		1.00	108.00	6.40	--	691.20		
	1st Cross Road		1.00	117.00	6.50	--	760.50		
							4515.10		
	Deduct prime coat						-1747.80		
							2767.30	3.18	**8800.01**
9	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)								
		Sqm							
	For Laying BC								
	8th Cross Road		1	85.00	5.80	--	493.00		
	7th Cross Road		1	83.00	5.90	--	489.70		
	6th Cross Road		1	82.00	6.00	--	492.00		
	5th Cross Road		1	75.00	6.50	--	487.50		
	4th Cross Road		1	84.00	6.30	--	529.20		
	3rd Cross Road		1	88.00	6.50	--	572.00		
	2nd Cross Road		1	108.00	6.40	--	691.20		
	1st Cross Road		1	117.00	6.50	--	760.50		
							4515.10	12.72	**57432.07**
10	KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)								
		Cum							
	8th Cross Road		1	85.00	5.80	0.04	19.72		
	7th Cross Road		1	83.00	5.90	0.04	19.59		
	6th Cross Road		1	82.00	6.00	0.04	19.68		
	5th Cross Road		1	75.00	6.50	0.04	19.50		
	4th Cross Road		1	84.00	6.30	0.04	21.17		
	3rd Cross Road		1	88.00	6.50	0.04	22.88		
	2nd Cross Road		1	108.00	6.40	0.04	27.65		
	1st Cross Road		1	117.00	6.50	0.04	30.42		
							180.60	8118.54	**1466240.80**

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
11	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)								
	Edge line	Sqm	2	722.00	0.10	--	144.40		
							144.40	542.72	7[illegible]
								Total Construction Cost	**2937677.888**
12								**Cost towards Preparation of DPR LS**	**29377.00**
13								**Cost towards PMC / Third Party inspection LS**	**29377.00**
								Sub Total	**2996431.89**
14								**Miscellaneous and rounding off**	**3568.11**
								Total	**3000000.00**

Certificate.

1 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Tejus Consultants

Assistant Engineer | Assistant Executive Engineer | Executive Engineer

Executive Engineer
Byatarayanapura Division
Palike, B.B.M.P.
Bangalore-560092